

Pro Elite™ LS7 Rectangle Port Chevy Cylinder Head #54504

DESCRIPTION

**RHS™ Pro Elite™ Big Bore LS7 cylinder head, CNC Ported bare casting
aluminum, 307cc intake runner, 69cc combustion chamber, 2.250" intake/1.615" exhaust valves**

Specifications

	Intake	Exhaust
Port Volume:	307cc	98cc
Port Dimension:	1.360" x 2.375"	1.765" x 1.440"
Port Location:	Raised .220" (Still utilizes stock manifold)	
Valve Angle:	12°	12°
Valve Head Diameter:	2.250"	1.615"
Valve Length:	5.565"	5.595"
Valve Seat Dimensions:	2.290" X 1.350" X .375"	1.680" X 1.350" X .375"
Valve Seat Angles:	35/45/Radius	35/45/Radius
Valve Guide Diameter:	5/16"	8mm
Valve Guide Dimensions:	.502" O.D. X 2.500"L X .500" boss dia.	.502" O.D. X 2.500"L X .500" boss dia.
Valve Guide Material:	Premium bronze material for superior heat dissipation and longer life	
Material:	Aluminum	
Chamber Volume:	69cc	
Spark Plug Location:	Optimized for best performance	
Spark Plug Type:	14mm, .750" reach, 5/8" hex, flat gasket style	
Spring Pocket Diameter:	1.625"	
Pushrod Diameter:	3/8" (larger diameter will require clearancing)	
Weight:	25 lbs	

Features

- Optimal port design for greater flow, better atomization & enhanced dynamics
- Unique multi-angled intake & radiused exhaust valve seats for increased flow and horsepower output
- Hardened valve seat for exceptional durability even when used in extreme applications with harsh fuels
- More efficient water jacket design for improved cooling and thermal conductivity, and reduced risk of detonation
- Thick deck faces with added material to allow angle milling for increased compression
- Revised combustion chamber design for excellent combustion thermodynamics and enhanced fuel efficiency
- All accessory bolt holes drilled and tapped to exact tolerances

Tech Notes

Flat Milling:	.006" per cc
Angle Milling:	.0075" per cc (excessive milling can cause intake manifold misalignment)
Head Bolt Torque:	Refer to cylinder head bolt manufacturer's specifications
Spring Pocket Machining:	Can be machined larger than 1.625" and cannot be machined deeper
Pushrod Length:	Measuring with length checker (COMP Cams® #7705) required to verify pushrod geometry
Piston to Valve Clearance:	Must be verified -minimum clearance is .080" intake and .100" exhaust
Retainer to Guide Clearance:	Must always be measured when using high lift cams
Chamber to Dome Clearance:	Must always be checked with domed pistons, clearancing may be necessary
Chamber Volume:	Varies due to valve margins and dishes, should always be verified before installation
Valve Guide Clearance:	Must be checked due to the variance in valve stem diameters between manufacturers Recommended clearance: intake .0015"-.0016", exhaust .002"-.0025" Water jackets require flushing prior to cylinder head installation
Cylinder Head Studs:	Follow fastener manufacture torque spec and procedure including the specified lubricant.
Bore Size:	Minimum Bore Size 4.065"
Header/Spark Plug Clearance:	Spark plug/ wire boot clearance verification is required prior to header installation. Minor modifications may be necessary in order to achieve proper clearance.

RHS™

3416 Democrat Rd. Memphis, TN 38118

Phone: (877) 776-4323 Fax: (901) 368 1951

www.racingheadservice.com

Part #54504IS

Revised 02/05/14

Pro Elite™ LS7 Rectangle Port Chevy Cylinder Head #54504

Suggested Assembly Components

Part Type	Brand/Part #	Description
Intake Valves	COMP Cams® #6068-8	2.250" x 5/16" valve stem diameter, Titanium
Exhaust Valves	COMP Cams® #6069-8	1.615" x 8mm valve stem diameter, Titanium
Valve Springs*	COMP Cams® #26925-16 (-05)	1.320" O.D. Dual Spring .660" Max Lift
	COMP Cams® #26926-16 (-06)	1.320" O.D. Dual Spring .675" Max Lift
Retainers*	COMP Cams® #713-16 (-05)	Steel Retainer
	COMP Cams® #779-16 (-06TS)	Titanium Retainer
	COMP Cams® #1779-16 (-06TI)	Tool Steel Retainer
Valve Locks*	COMP Cams® #623-16	8mm 7° Machined Steel, valve lock set
Valve Stem Seals	COMP Cams® #511-16	.500" steel jacketed viton valve stem seals
Spring Locators*	COMP Cams® #4709-16	Spring Seat Cup

Additional Recommended Components

Part Type	Brand/Part #	Description
Spark Plugs	ZEX™ #82003-8	Street/strip: 14mm, .750" reach, 5/8" hex, premium spark plug set
	ZEX™ #82216-8	Race: Champion #C57YC, 14mm, .750" reach, 5/8" hex, premium spark plug
Rocker Arms	COMP Cams® #1525	LS7/RHS™ Raised Port Shaft Mount Rocker System 1.8/1.8 Ratio Rocker Arms
Head Studs**	ARP #234-4339	ARP Heads stud set for RHS LS7 Head and RHS Block

Application Notes

** Recommended components only, individual application must be verified prior to installation

RHS™

3416 Democrat Rd. Memphis, TN 38118
 Phone: (877) 776-4323 Fax: (901) 368 1951
www.racingheadservice.com

Part #54504IS
 Revised 02/05/14